

US-PAT-NO: 5695541

DOCUMENT-IDENTIFIER: US 5695541 A

TITLE: Process for preparation of bacterial
agricultural products

----- KWIC -----

Claims Text - CLTX (2):

culturing a species of microorganism capable of surviving in a desiccated state selected from *B. japonicum*, *R. meliloti*, *R. leguminosarum* biovar *trifolii*, *viceae* and *phaseoli*, *Bradyrhizobium* species for peanut, and *B. lupini* in a growth medium to form a culture;

Claims Text - CLTX (10):

culturing a species of microorganism selected from *B. japonicum*, *R. meliloti*, *R. leguminosarum* biovar *trifolii*, *viceae* and *phaseoli*, *Bradyrhizobium* species for peanut, and *B. lupini* in a growth medium to form a culture;

US-PAT-NO: 4711656

DOCUMENT-IDENTIFIER: US 4711656 A

TITLE: Enhancement of nitrogen-fixation
with rhizobial tan
variants

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Detailed Description Text - DETX (13):

Bradyrhizobium japonicum L-259 (USDA strain 26) was obtained from the Agricultural Research Service Culture Collection, Peoria, Ill. 61604. The organism was grown on a nitrogen-limited medium containing 0.3 g. L-glutamic acid (glu) and 0.5 g. L-tryptophan (trp) per liter. The complete medium contained glutamate-mannitol-gluconate (GMG) as nitrogen and carbon sources as set forth in Table I, below. Relative growth in liquid media was determined by turbidity with a "Klett-Summerson" colorimeter fitted with a 660 nm. filter (Klett.₆₆). In the 0.3 g. glu medium, the wild-type strain L-259 gave a colorless but limited growth of 170 Klett.₆₆ turbidity units. The aerobic, submerged culture incubated at 25.degree. C. for 5 days on a rotary shaker (150 r.p.m.) was incubated further as a static culture for 15 days, yielding a tan broth. The broths were dark brown when 10% inocula were subtransferred twice more (14 days each incubation) into fresh N-limited medium containing 0.1 g. glu acid and 0.5 g. trp per liter. When limited by 0.1 g. glu per liter, growth was 85 Klett.₆₆ turbidity units and yielded 15.₁₀⁸ colony-forming units (CFU) per ml.

US-PAT-NO: 5922316

DOCUMENT-IDENTIFIER: US 5922316 A

TITLE: Composition for enhancing grain
yield and protein yield
of legumes grown under environmental
conditions that
inhibit or delay nodulation thereof

----- KWIC -----

Detailed Description Text - DETX (8):

The inoculum was produced by culturing *Bradyrhizobium japonicum* strain 532C (Hume and Shelp, 1990) in yeast extract mannitol broth in 250 mL flasks shaken at 125 rpm at room temperature. Strain 532C has been shown to perform well over a range of temperatures (Lynch and Smith, 1993, *Physiol. Plant* 88:212-220). For production of *B. japonicum* preincubated with genistein, 10 mL of a cell suspension from a 3-day-old (log phase 2.times.10.sup.9 cells mL.sup.-1) sub-culture were aseptically added to 50 mL of sterile genistein solution in a 250 mL Erlenmeyer flask and incubated at 30.degree. C. without shaking for 48 hours (Halverson and Stacey, 1984). Following incubation, the cell suspensions were pelleted in sterile centrifuge tubes at 7000 g for 10 minutes, washed once with distilled water, and resuspended to an A.sub.620 of 0.08 (approximately 10.sup.5 cells mL.sup.-1). The inoculum was cooled to the corresponding root temperature and 1 mL of the inoculum was applied by pipette onto the rooting medium at the base of the plant.

US-PAT-NO:

6124094

DOCUMENT-IDENTIFIER: US 6124094 A

See image for Certificate of Correction

TITLE:

nucleic acids

Zoogloea and hyphomicrobium spp.

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Detailed Description Text - DETX (82):

Hyphomicrobium strains were grown on ATCC culture medium 656 [KH₂PO₄, 1.36 g/l; Na₂HPO₄, 2.15 g/l; (NH₄)₂SO₄, 0.5 g/l; MgSO₄·7H₂O, 0.2 g/l; trace solution (CuCl₂, 0.15 g;. FeSO₄·7H₂O, 0.1 g; MnSO₄·H₂O, 0.035 g; Na₂MoO₄, 2H₂O, 0.05 g; distilled water, 100 ml) 5.0 ml/l; filter sterilized methylamine hydrochloride, 3.38 g/l; Agar Noble (Difco 0142), 18.0 g/l; distilled water, 1 liter; pH 7.1] at 30.degree. C. Bradyrhizobium japonicum was grown on RDY medium [yeast extract, 1 g/l; K₂HPO₄, 0.12 g/l; MgSO₄, 0.1 g/l; trace element (H₃BO₃, 3 g/l MnSO₄·4H₂O, 2.23 g/l; ZnSO₄·7H₂O, 0.29 g/l; CuSO₄·5H₂O, 0.125 g/l; COCl₂, 0.065 g/l; Na₂MoO₄·2H₂O, 0.12 g/l; 1 mM FeCl₃), 1 ml/l; L-glutamate, 1.0 g/l; Na-gluconate, 5.0 g/l, distilled water, 1 liter; pH 7.0] at 30.degree. C. Sphingomonas capsulate and Sphingomonas strain A8AN3 were grown on Nutrient broth (8.0 g/l peptone) pH 7.0 at room temperature. Zoogloea ramigera strain 25935 was grown on Stokes medium [Peptone, 5 g; 100.times. stock (MgSO₄·7H₂O, 20 g; NH₄SO₄, 7.5 g;

Sodium citrate, 10 g; CaCl₂, 5 g; MnSO₄, 5 g;
FeCl₃.6H₂O,
1 g, FeSO₄, 7.5 g; distilled water, 1 liter), 2 ml;
pH 7.2 at 30.degree.
C. Escherichia coli was grown on LB agar at 37.degree. C.